CLAIMS

What is claimed is:

1. A method of documenting a failure in a telecommunications network, comprising the steps of:

defining a component structure for elements in the network;

determining if any of the component structures are in failure in the network;

associating, based on the determined failure of at least one of the component structures, a customer circuit terminating on a node wherein the component structure is in failure; and

generating automatically a trouble ticket based on the associated failed network component with the node.

2. The method recited in claim 1, wherein the defining step comprises the step of sectionalizing the elements into their basic component structures to quantify failures of the elements at a level of the component structures.

3. The method recited in claim 2, wherein the sectionalizing step comprises the step of sectionalizing the elements into a plurality of levels corresponding to parts in the network elements.

4. The method recited in claim 3, wherein the generating step comprises the step of generating an element trouble ticket which documents a failure of an element in the network.

5. The method recited in claim 4, further comprising the step of generating a service trouble ticket in response to the generation of the element trouble ticket which documents all circuits in the network that are experiencing failure as a result of the failure of the network element.

6. The method recited in claim 5, wherein the step of generating a service trouble ticket generates a plurality of service trouble tickets, each of the service trouble tickets documenting a failure of a separate circuit in the network which results from the network element failure.

7. The method recited in claim 6, further comprising the step of invoking a maintenance function in response to at least one of the generated service trouble tickets, the maintenance function operable for diagnosing the failure of the network element.

8. The method recited in claim 7, further comprising the step of invoking a customer care function for providing to a customer a status of a circuit affected by the network element failure.

9. The method recited in claim 8, wherein the invoking of the customer care function step comprises the step of entering comments to service tickets automatically to update customers concerning status of the network failures.

10. The method recited in claim 9, further comprising the step of making available the trouble tickets over a medium to a customer.

11. The method recited in claim 10, wherein the medium comprises the Internet.

12. A method of generating trouble tickets for network elements that are in failure and affecting network performance, comprising the steps of:

defining component structures of each of the network elements in the network that may be in failure and quantifying whether any of the component structures in any of the elements in the network are in failure;

associating the failures of the component structures of the network elements with customer nodes in the network that are affected by the failures and wherein the nodes comprise circuits in the network that are utilized by customers to automatically generate trouble tickets regarding the failures which may be communicated to network maintenance personnel; and

making available the trouble tickets to the customers to give customers automatic access over a medium to information regarding status of the failures.

13. The method recited in claim 12, wherein the medium comprises a local area network.

14. The method recited in claim 12, wherein the medium comprises a wide area network.

15. The method recited in claim 12, wherein the network comprises a broadband network.

16. The method recited in claim 12, wherein the network comprises an Intranet.

17. The method recited in claim 12, wherein the network comprises the Internet.

18. The method recited in claim 17, wherein the defining step further comprises the step of sectionalizing the elements into their basic component structures to quantify the failures at a level of the component structures.